#### Original (for SUBMISSION )

0	For receiving Office use only	
0-1	International Application No.	
0-2	International Filing Date	
0-3	Name of receiving Office and "PCT International Application"	
0-4	Form PCT/RO/101 PCT Request	
0-4-1	Prepared Using	PCT-SAFE [EASY mode] Version 3.50 (Build 0002.169)
0-5	Petition	(20110 0002.103)
	The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
0-6	Receiving Office (specified by the applicant)	Korean Intellectual Property Office (RO/KR)
0-7	Applicant's or agent's file reference	PCTA9502-92
	Title of Invention	GAMMA-BUTYROBETAINE HYDROXYLASE ORIGINATED FROM NEUROSPORA CRASSA
1	Applicant	
1-1	This person is	applicant only
l-2	Applicant for	all designated States except US
1-4	Name	CJ Corporation
l-5	Address	500, Namdaemunno 5-ga, Jung-gu, Seoull00-802 Republic of Korea
-6	State of nationality	KR
7	State of residence	KR
-8	Telephone No.	82-2-726-8287
-9	Facsimile No.	82-2-6740-1023
		= v/=v-1043

#### Original (for SUBMISSION )

111-1	Applicant and/or inventor	
-1    -1-1	Applicant and/or inventor This person is	
	· '	applicant and inventor
III-1-2	Applicant for	US only
III-1 <del>-4</del>	Name (LAST, First)	CHUNG, Sung Oh
III-1-5	Address	#402-405, Saetbyeol Sambu Apt., Bundang-dong, Bundang-gu, Seongnam-si, Gyeonggi-do463-749 Republic of Korea
III-1-6	State of nationality	KR
III-1-7	State of residence	KR
III-2	Applicant and/or inventor	
III-2-1	This person is	applicant and inventor
III-2-2	Applicant for	US only
III-2-4	Name (LAST, First)	LEE, Bheong-Uk
III-2-5	Address	#149-1, Colleage of Health Sciences, Kosin Univ., Dongsam-dong, Yeongdo-gu,
٠		Busan606-701
III-2-6	State of nationality	Republic of Korea
111-2-7	State of residence	KR KR
[]]-3	Applicant and/or inventor	AA .
III-3-1	This person is	
111-3-2	Applicant-for-	applicant and inventor
	Name (LAST, First)	OB OHLY
III-3-5	Address	KANG, Whan-Koo
111-0-0	Audiess	#210-1503, Expo Apt., Jeonmin-dong, Yuseong-gu, Daejeon305-761 Republic of Korea
III-3-6	State of nationality	KR
III-3-7	State of residence	KR
III-4	Applicant and/or inventor	
III-4-1	This person is	applicant and inventor
III-4-2	Applicant for	US only
11-4-4	Name (LAST, First)	JU, Jae Yeong
11-4-5	Address	#104-401, Mujigaemaeul Daelim Apt., Gumi-dong, Bundang-gu, Seongnam-si, Gyeonggi-do463-703 Republic of Korea
11-4-6	State of nationality	KR
11-4-7	State of residence	
		KR

# BEST AVAILABLE COPY

#### Original (for SUBMISSION)

III-5	Applicant and/or inventor	
III-5-1	This person is	applicant and inventor
111-5-2	Applicant for	US only
III-5-4	Name (LAST, First)	KOH, Eun Sung
III-5-5	Address	#302, Yangcheon Yeonlip, Woncheon-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do443-380 Republic of Korea
III-5 <b>-</b> 6	State of nationality	KR
III-5-7	State of residence	KR
III-6	Applicant and/or inventor	
III <b>-</b> 6-1	This person is	applicant and inventor
III <del>-</del> 6-2	Applicant for	US only
III-6-4	Name (LAST, First)	PARK, Sung-Sik
III-6-5	Address	#101-701, Mokryun Town, Irwon-dong, Gangnam-gu, Seoul135-230 Republic of Korea
III-6-6	State of nationality	KR
III-6-7	State of residence	KR
111-7	Applicant and/or inventor	
111-7-1	This person is	applicant and inventor
11-7-2	Applicant for	US only
11-7-4	Name (LAST, First)	PAKR, Young Hoon
II-7-5	Address	#111-102, Mujigaemaeul Daelim Apt., Gumi-dong, Bundang-gu, Seongnam-si, Gyeonggi-do463-703 Republic of Korea
11-7-6	State of nationality	KR
1-7-7	State of residence	KR

#### Original (for SUBMISSION)

IV-1	Agent or common representative; or address for correspondence	
	The person identified below is hereby/ has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent
IV-1-1	Name (LAST, First)	SON, Min
IV-1-2	Address .	19th Floor, City Air Tower 159-9, Samseong-dong, Gangnam-gu, Seoul135-973 Republic of Korea
IV-1-3 <sub>5</sub>	Telephone No.	82-2-2016-7900
IV-1-4	Facsimile No.	82-2-2016-7905
IV-1-5	e-mail	minson@hanollawip.com
$\overline{v}$	DESIGNATIONS	
V-1	The filing of this request constitutes under Rule 4.9(a), the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.	
V-2	Item V-2 may be used to exclude (irrevocably) the designations concerned in order to avoid the ceasing of the effect, under the national law, of an earlier national application from which priority is claimed. As to the consequences of such national law provisions in these and certain other States, see	KR
	Designations in PCT-SAFE Help.	
VI-1	Priority claim of earlier national application	
VI-1-1	Filing date	26 February 2004 (26.02.2004)
VI-1-2	Number	10-2004-0013032
VI-1-3	ا ما	KR
VII-1	International Searching Authority Chosen	Korean Intellectual Property Office (ISA/KR)

#### 5/6

#### Original (for SUBMISSION)

VIII	Declarations	Number of declarations	
VIII-1	Declaration as to the identity of the inventor	-	
VIII-2	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent	-	
VIII-3	Declaration as to the applicant's ent itlement, as at the international filing date, to claim the priority of the earlier application		
VIII-4	Declaration of inventorship (only for the purposes of the designation of the United States of America)	-	
VIII-5	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty	-	
IX	Check list	number of sheets	electronic file(s) attached
IX-1	Request (including declaration sheets)	6	
IX-2	Description (excluding sequence listing part)	12	<u>-</u>
IX-3	Claims	1	_
IX-4	Abstract /	1	
IX-5	Drawings	.3	<u> </u>
IX-7a	Sub-total number of sheets	23	
IX-6a	Sequence listing part of description	5	_
IX-7	TOTAL	28	
	Accompanying Items	paper document(s) attached	electronic file(s) attached -
IX-8	Fee calculation-sheet		
IX-11	Copy of general power of attorney	reference no. PCTA9502-92	-
IX-15	Separate indications concerning deposited microorganism or other biological material		-
	Sequence listing in computer readable form		
IX-16(A) -(ii)	additional copies including, where applicable, the copy for the purposes of international search under Rule 13ter	<del>-</del>	1 Diskette
IX-17	PCT-SAFE physical media	-	
	accompany the abstract	1	
IX-20 .	Language of filing of the international application	Korean.	

## BEST AVAILABLE COPY

6/6

#### Original (for SUBMISSION )

X-1	Signature of applicant, agent or common representative		
X-1-1	Name (LAST, First)	SON, Min	,
X-1-2	Name of signatory		
X-1-3	Capacity	, i	•

### FOR RECEIVING OFFICE USE ONLY

10-1	Date of actual receipt of the purported international application	
10-2	Drawings:	-
10-2-1	Received	· ·
10-2-2	Not received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/KR
10-6	Transmittal of search copy delayed until search fee is paid	

#### FOR INTERNATIONAL BUREAU USE ONLY

11-1	Date of receipt of the record copy by	
	the International Bureau	·
		`

BEST AVAILABLE COPY

1/1

PCT (ANNEX - FEE CALCULATION SHEET)
Original (for SUBMISSION)
(This sheet is not part of and does not count as a sheet of the international application)

0	For receiving Office use only				
0-1	International Application No.				
0-2	Date stamp of the receiving Office				
	.1				
0-4	Form PCT/RO/101 (Annex)		<del></del>		<del></del>
	PCT Fee Calculation Sheet				•
0-4-1	Prepared Using		PCT-SAFE [EAS:	Y mode]	
			Version 3.50	(Build 0002.16	9)
0-9	Applicant's or agent's file reference	•	PCTA9502-92		
2	Applicant		CJ CORPORATION	N	
12	Calculation of prescribed fees		fee amount/muliplier	Total amounts (KRW)	<del></del>
12-1	Transmittal fee	T	₽	45000	
12-2-1	Search fee	s	₽	225000	
12-2-2	International search to be carried out I	by	KR		<u> </u>
12-3	International filing fee			•	
	(first 30 sheets)	i1	1329000		. •
12-4	Remaining sheets		0	-	•
12-5	Additional amount	(X)	0		
12-6	<u>L</u> . •	12	. 0		
12-7	i1 + i2 =	1	1329000		
12-12	L	R	-95000		
12-13	Total International filing fee (i-R)	1	₽,	1234000	<del></del>
12-14	Fee for priority document	$\neg$			
	Number of priority documents requested		0		*******
2-15		x	<del></del>		
2-16	Total priority document fee:	P	₽		
2-17	TOTAL FEES PAYABLE (T+S+I+P)	$\top$	₽	1504000	
2-19	Mode of payment	٦,	ash		

1/1

#### Original (for SUBMISSION)

0-1	Form PCT/RO/134 (SAFE) Indications Relating to Deposited Microorganism(s) or Other Biological Material (PCT Rule 13bis)	
0-1-1	Prepared Using	PCT-SAFE [EASY mode] Version 3.50 (Build 0002.169)
0-2	International Application No.	Version 3.30 (Build 0002.169)
0-3	Applicant's or agent's file reference	PCTA9502-92
1 .	The indications made below relate to the deposited microorganism(s) or other biological material referred to in the description on:	
1-1	page	6
1-2	line ·	12-15
1-3	Identification of deposit	
1-3-1	Name of depositary institution	KCCM Korean Culture Center of Microor-
1-3-2	Address of depositary institution	361-221, Yurim B/D, Honje 1, Sudaemun, Seoul, 120-091, Republic of Korea
1-3-3	Date of deposit	27 January 2004 (27.01.2004)
1-3-4	Accession Number	KCCM 10557
1-5	Designated States for Which Indications are Made	all designations
	FOR R	ECEIVING OFFICE USE ONLY
0-4	This form was received with the international application: (yes or no)	
0-4-1	Authorized officer	
	FOR INTER	RNATIONAL BUREAU USE ONLY
0-5	This form was received by the international Bureau on:	
)-5-1	Authorized officer	

#### Original (for SUBMISSION )

13-2-1	Validation messages	Green?
•	Request	A translation of the int'l application into (one of) the following language(s) must be furnished within one month of the date of receipt by the receiving Office: English
	Validation messages Request	Green? A translation of the international application into English will have to be prepared under the responsibility of the ISA selected.
	Validation messages Request	Green? Please note that the entire request (including the title of invention) must be in English
13-2-2	Validation messages States	Green? Please note that the following States have NOT been designated: KR.
13-2-3	Validation messages Names	Green? Applicant 1: Name should preferably be entered in capital letters. Please verify.
13-2-7	Validation messages Contents	Green? Priority 1. The priority document is not enclosed. (The applicant must furnish it within 16 months from the earliest priority date claimed)
13-2-8	Validation messages Fees	Green? Please confirm that fee schedule utilized is the latest available

본 발명은 뉴로스포라 크라사(Neurospora crassa) 기원의 감마부티로베타인 하이드록실라제 (γ-Butyrobetaine hydroxylase: γ-BBH)를 코딩하는 폴리뉴클레오타이드, 상기한 폴리뉴클레오타이드를 포함하는 재조합 벡터, 상기한 재조합 벡터로 형질전환된 형질전환체, 상기한 폴리뉴클레오타이드에 의해 코딩되는 감마부티로베타인 하이드록실라제, 및 감마부티로베타인을 상기한 폴리뉴클레오타이드에 의해 코딩되는 감마부티로베타인 하이드록실라제로 하이드록실화하여 L-카르니틴(L-Carnitine)을 제조하는 방법에 관한 것이다.